Environmental Science Graduate Program Student Seminar Series

Optimizing dairy production and environment concerns

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Abstract:

The demand for animal products is increasing with the population growth as well as a result of an increase in the buying power of people. Consequently, in order to attend the demand, current systems of production are shifting towards intensive ways of production, increasing the number of cows, using high producing animals and feeding a high amount of nutrients. While farming activities bring food to our table, its other "outputs", such as nitrogen (N) excretion and enteric methane (CH4) production, are great concerns, once they are potentially detrimental to the environment. A high N excretion can lead the eutrophication of waters, as well as, N in the soil can be converted to nitrous oxide, which is a greenhouse gas with a high warming potential. Moreover, CH4 from farming activities is also a big concern regarding global warming. Long-term effects of the current way of producing food might cause irreversible environmental degradation, thus, all efforts possible are valuable in order to avoid a future collapse. Strategies that conciliate improving animal production with lower nutrient excretion and gases emissions are wanted. This presentation will be based on exposing the environmental impacts of animal production and some nutritional strategies to overcome the concerns.